

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
3 June 2004 (03.06.2004)

PCT

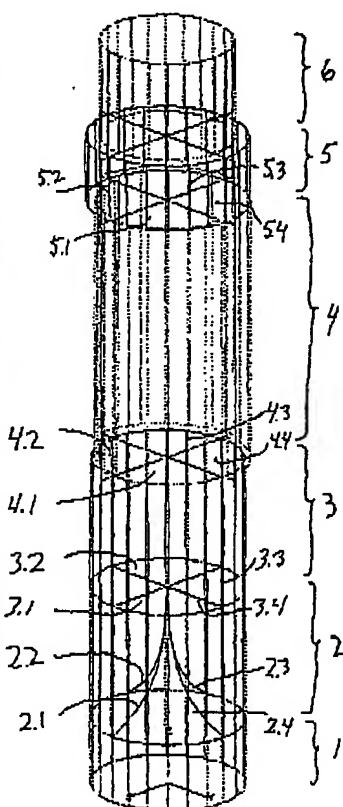
(10) International Publication Number
WO 2004/047217 A1

- (51) International Patent Classification: H01P 1/16
(21) International Application Number: PCT/SE2003/001768
(22) International Filing Date: 14 November 2003 (14.11.2003)
(25) Filing Language: Swedish
(26) Publication Language: English
(30) Priority Data: 0203390-0 18 November 2002 (18.11.2002) SE
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(81) Designated States (national): AE, AG, AI, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GR, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
(84) Designated States (regional): ARIPO patent (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

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(54) Title: METHOD FOR CONVERSION OF WAVEGUIDE MODES, MODE-CONVERTING ARRANGEMENT AND ANTENNA ARRANGEMENT.

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(57) Abstract: The invention relates to a method for conversion of waveguide modes from a mode of type TM_{01} to mode of type TE_{11} for transmission of power within the microwave range. The invention also relates to a mode-converting arrangement and an antenna arrangement with such a mode-converting arrangement. The mode-converting arrangement comprises an incoming waveguide (1) for reception of power of the type TM_{01} , an outgoing waveguide (6) for outputting power of mode type TE_{11} and a waveguide-mode-converting section (2-5) arranged between the incoming and outgoing waveguides. According to the invention, incoming power of mode type TM_{01} is divided in an input section (2) between two or more waveguides with cross-sections in the shape of circle sectors. Thereafter, the divided power is phase-shifted by the waveguides in a subsequent phase-shift section (4) being designed with cross-sections that are essentially in the shape of circle sectors with different radii, after which the waveguides are changed into a common essentially circular waveguide (6) that emits an outgoing power of mode type TE_{11} . By means of the invention, a relatively simple solution is produced, that can cope with high powers.



Published:

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